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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

**MAILED**

Application Number: 09/668,785

SEP 07 2007

Filing Date: September 22, 2000

Appellant(s): LONGBOTTOM ET AL.

**GROUP 3600**

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William B. Patterson  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed June 26<sup>th</sup>, 2007 appealing from the Office action mailed January 26<sup>th</sup>, 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5504491	CHAPMAN	4-1996
5730219	TUBEL et al.	3-1998
6867752	YAMAZAKI et al.	3-2005
20040190374	ALFT et al.	9-2004

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-18, 20-45, 49, 50, 55 and 69-90 are rejected under 35 U.S.C 103. This rejection is set forth in prior Office Action. The rejection is set forth below as it appears in the previous Office Action.

Claims 1-18, 20-45, 49, 50, 55 and 69-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman (5,504,491), Tubel (5,730, 219), Yamazaki (6,867,752) in view of Alft (2004/0190374), for substantially the same reasons given in the prior Office Action, and incorporated herein. Further reasons are presented hereinbelow.

(A) Claim 1 has been amended to recite the limitation of "by a person at the off-site location". However, this changes does not affect the scope and the breadth of the claim

as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(B) Claim 2 has been amended to recite the limitation of "drilling rig via the portable communications module and the at least two-way data communication connection by the off-site person". However, this limitation has been met by Alft in Page 14, Paragraphs 0130-0131).

(C) Claim 3 has been amended to recite the limitation of "the", "an", "at the drilling rig", "at the off-site location". However, this changes does not affect the scope and the breadth of the claim as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(D) Claim 4 has been amended to recite the limitation of "comprise". However, this changes does not affect the scope and the breadth of the claim as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(E) Claim 5 has been amended to recite the limitation of "further comprising recording and billing the activities". However, this limitation has been met by Tubel in Col.3, lines 36-65).

(F) Claim 7 has been amended to recite the limitation of "the activities comprise". However, this changes does not affect the scope and the breadth of the claim as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(G) Claim 8 has been amended to recite the limitation of "monitoring the", and "monitoring". However, this changes does not affect the scope and the breadth of the claim as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(H) Claims 10 and 21 have been amended to recite the limitation of "at the drilling rig". However, this changes does not affect the scope and the breadth of the claim as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(I) Claim 12 has been amended to recite the limitation of "further comprising comparing a ". However, this changes does not affect the scope and the breadth of the claim as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(J) Claims 14 and 15 have been amended to recite the limitation of "the", "drilling rig". However, this changes does not affect the scope and the breadth of the claim as

originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(K) Claim 16 has been amended to recite the limitation of "the", "comprise", "measuring lengths and "module". However, this changes does not affect the scope and the breadth of the claim as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(L) Claim 17 has been amended to recite the limitation of "comprise" and "recording". However, this changes does not affect the scope and the breadth of the claim as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(M) Claim 18 has been amended to recite the limitation of "comprise measuring". However, this changes does not affect the scope and the breadth of the claim as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(N) Claim 25 has been amended to recite the limitation of "a". However, this changes does not affect the scope and the breadth of the claim as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(O) Claim 26 has been amended to recite the limitation of "by the off-site person".

However, this changes does not affect the scope and the breadth of the claim as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(P) Claim 30 has been amended to recite the limitation of "wherein the hardhat is at an on-site location and" and "at an off-site location". However, this changes does not affect the scope and the breadth of the claim as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(Q) Claim 36 has been slightly amended to erase several words.

(R) Claim 43 has been amended to recite the limitation of "person". However, this changes does not affect the scope and the breadth of the claim as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(S) Claim 50 has been amended to recite the limitation of "drilling rig", "the" and "person". However, this changes does not affect the scope and the breadth of the claim

as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(T) Claim 55 has been amended to recite the limitation of "module". However, this changes does not affect the scope and the breadth of the claim as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(U) Claims 69-70 and 72-77 have been amended to recite the limitation of "the". However, this changes does not affect the scope and the breadth of the claim as originally presented, and is therefore rejected for the same reasons given in the previous Office Action, and incorporated herein.

(V) As per the newly added claim 78, Tubel discloses the method further comprising drilling a wellbore to an oil and /or gas bearing formation (See Tubel, Col.18, lines 34-67; Col.19, lines 34-59).

(W) As per the newly added claim 79, Tubel discloses the method wherein the connection is real-time (See Tubel, Abstract).

(X) As per the newly added claim 80, Alft discloses the method further comprising communicating one or more procedures from the off-site person to the person at the drilling rig (See Alft, Page 14, Paragraphs 0130-0132).

(Y) As per the newly added claim 81, Alft discloses the method wherein the one or more procedures comprise an assembly drawing, a picture of a part, a video of an installation procedure, or a training session (See Alft, Page 15, Paragraphs 0132-0134).

(Z) As per the newly added claim 82, Alft discloses the method wherein the one or more procedures comprise a schematic drawing of a part or machine, critical dimensions of a part or machine, or checklist or video clip showing how to use a part or machine (See Alft Page 15, Paragraphs 0132-0134).

(AA) As per the newly added claim 83, Alft discloses the method wherein the part or machine is a tong (Examiner interprets pump or motor to be a form of tong See Alft, Page 25, Paragraphs 0218-0219).

(BB) As per the newly added claim 84, Tubel discloses the method wherein the part or machine is fishing equipment (The Examiner interprets water 16 to the surface of the ocean floor 18 and then downwardly into formations under the ocean floor as a form of fishing activities See Col.8, lines 64-67).

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(CC) As per the newly added claim 85, Alft discloses the method wherein the part or machine is a parameter measuring device (See Alft, Page 8, Paragraphs 0079-0080).

(DD) As per the newly added claim 86, Alft discloses the method further comprising the person at the drilling rig performing a task using the one or more procedures (See Alft, Page 8, Paragraphs 0082-0083).

(EE) As per the newly added claim 87, Alft discloses the method wherein the communications module is portable (See Alft, Page 9, Paragraph 0087).

(FF) As per the newly added claim 88, Alft discloses the method wherein the on-site person wears the communications module or the communications module is attached to the on-site person (See Alft, Page 9, Paragraph 0087).

(GG) As per the newly added claim 89, Tubel discloses the method wherein the one or more procedures comprise an assembly drawing, a picture of a part, a video of an installation procedure, or a training session (See Tubel, Col.15, lines 14-43).

(HH) As per the newly added claim 90, Tubel discloses the method wherein the one or more procedures comprise a schematic drawing of a part or machine, critical dimensions of a part or machine, or checklist or video clip showing how to use a part or machine (See Tubel, Col.15, lines 14-43).

**(10) Response to Argument**

In the Appeal Brief filed 6/26/07, Appellant makes the following arguments:

- (i) The Examiner erred in rejecting claims 1 and 42 and their dependencies, specifically, teaching, suggestion or motivation (TSM) to combine.
- (ii) The Examiner has failed to provide any analysis including elements, such as: a problem one of ordinary skill would be seeking to solve, the knowledge one of ordinary skill would possess, the design methodology one of ordinary skill would employ, and/or why one of ordinary skill would anticipate success in combining the references.
- (iii) The Examiner has not provided a sufficient TSM to combine the references and certainly not one that overcomes the teachings away of Alft and Tubel
- (iv) None of the cited references, either alone or in combination, teach, suggest, or disclose a portable communication attachment attached to a hard hat.

Examiner will address Appellant first argument and related points in sequence as they appear in the Brief.

- (I) With respect to Appellant first argument, Examiner respectfully submitted that obviousness is determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See *In Oetiker*, 977 F.2d 1443, 1445, 24 USPQ 2d

1443, 1444 (Fed. Cir. 1992); *In re Hedges*, 783 F.2d.1038, 1039,228 USPQ 685, 686 (Fed. Cir.1992); *In re Piasecki*, 745F. 2d 1468, 1472, 223 USPQ 785, 788 (Fed.Cir. 1984); and *In re Rinehart*, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

Using this standard, the Examiner respectfully submits that he has at least satisfied the burden of presenting a *prima facie* case of obviousness, since he has presented evidence of corresponding claim elements in the prior art and has expressly articulated the combinations and the motivations for combinations that fairly suggest. Appellant's claimed invention. Note, for example, in rejection of claim 1, Examiner had stated the following:

As per claim 1, Chapman discloses a method of communicating between a drilling rig and at least one off-site location (Col.4, lines 33-67), the method comprising: providing a portable data communications module to a person at the drilling rig (See Tubel, Col.5, lines 4-67 to Col.6, line 42; Col.9, lines 29-67 to Col.10, line 67).

Chapman, Tubel and Yamazaki do not explicitly disclose that the method having establishing an at least two-way data communication connection between the portable data communications module and the at least one on-site location via the Internet; and remotely monitoring drilling activities at the drilling rig via the portable communications module and the at least two-way data communication connection.

However, these features are known in the art, as evidenced by Alft. In particular, Alft suggests that the method having establishing an at least two-way data communication connection between the portable data communications module and the at least one on-site location via the Internet (See Alft, Page 14, Paragraph 0130); and

remotely monitoring drilling activities at the drilling rig via the portable communications module and the at least two-way data communication connection (See Alft, Page 14, Paragraph 0130).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Alft within the combined teachings of Tubel, Chapman, Yamazaki and Alft with the motivation of providing an earth penetrating apparatus for use with a boring machine, such as a horizontal directional drilling machine (See Alft, Page 2, Paragraph 0011).

As such, it is respectfully submitted that an explanation based on logic and sound scientific reasoning of one ordinary skilled in the art at the time of the invention that support a holding of obviousness has been adequately provided by the motivations and reasons indicated by the Examiner in the previous Office Action, incorporated herein, *Ex parte Levengood*, 28 USPQ2D 1300 (Bd. Pat. App. & Inter., 4/22/93).

(II) With respect to Appellant second argument, the Examiner respectfully submitted Appellant further fails to properly consider the clear and unsmistakable teachings of the applied references, and further fails to properly consider the breadth of the claim limitations presently argued. Furthermore, the Examiner respectfully submitted that He has relied upon the reference of Chapman for such a feature. Note that Chapman suggests "a global status and position reporting system for a remote unit having a status and position transmit/receive unit with at least one status and/or event input connected to a respective status and/or event sensor for reporting at least one

system status and/or event and position of the remote unit, and a status output connected to a communication interface; at least one base unit adapted for receiving a status and position report, disposed at a position spaced away from the remote unit; position independent communications means including communications interfaces respectively disposed in the remote unit and in the base unit for transmitting a status and position report from the remote unit to the base unit upon receipt of an activating prompt from the status sensor or a prompt initiated at the base unit" which correspond to Appellant's claimed feature (See Chapman, Abstract; Fig.4; Col.7, lines 39-63). It appears that Appellant seeks to assign a specific meaning to the term "a portable data communications module to a person at the drilling rig" which is not explicitly defined via a positive and concrete definition within the present specification, nor further defined in the bodies of the pending claims. As such, the Examiner respectfully submitted that such terms were given their broadest reasonable interpretations during examination, and since the applied reference clearly discloses the claimed limitations, when given their broadest reasonable interpretations, it is respectfully submitted that the Examiner's reliance on Chapman is indeed proper.

(iii) With respect to Appellant's third and fourth arguments, Examiner respectfully submitted that obviousness is determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See *In re Oetiker*, 977F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Hedges*, 783F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785,

788 (Fed. Cir. 1984); and *In re Rinehart*, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Using this standard, the Examiner respectfully submits that he has at least satisfied the burden of presenting a *prima facie* case of obviousness, since he has presented evidence of corresponding claim elements in the prior art by expressly pointing to specific portions of each applied reference and has expressly articulated the combinations and the motivations for combinations as well as the scientific and logical reasoning of one skilled in the art at the time of the invention that fairly suggest Applicant's claimed invention.

Each applied reference does not expressly suggest combination with the other respective references; however, the Examiner has shown that motivation for combining the references existed in the prior art. Within the present combinations, all of the modifications proposed by the Examiner are taught by the references and that knowledge generally available to one of ordinary skill in the art. Therefore, the combination of references is proper and the rejection maintained.

In addition, the Examiner recognizes that references cannot be arbitrarily altered or modified and that there must be some reason why one skilled in the art would be motivated to make the proposed modifications. However, although the Examiner agrees that the motivation or suggestion to make modifications must be articulated, it is respectfully contended that there is no requirement that the motivation to make modifications must be expressly articulated within the references themselves. References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures, *In re Bozek*, 163 USPQ 545 (CCPA 1969).

The Examiner is concerned that Appellant apparently ignores the mandate of the numerous court decisions supporting the position given above. The issue of obviousness is not determined by what the references expressly state but by what they would reasonably suggest to one of ordinary skill in the art, as supported by decisions in *In re DeLisle* 406 Fed 1326, 160 USPQ 806; *In re Kell, Terry and Davies* 208 USPQ 871; and *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ 2d 1596, 1598 (Fed. Cir. 1988) (citing *In re Lalu*, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)). Further, it was determined in *In re Lamberti et al*, 192 USPQ 278 (CCPA) that:

- (i) obviousness does not require absolute predictability;
- (ii) non-preferred embodiments of prior art must also be considered; and
- (iii) the question is not express teaching of references, but what they would suggest.

According to *In re Jacoby*, 135 USPQ 317 (CCPA 1962), the skilled artisan is presumed to know something more about the art than only what is disclosed in the applied references. In *In re Bode*, 193 USPQ 12 (CCPA 1977), every reference relies to some extent on knowledge of persons skilled in the art to complement that which is disclosed therein.

According to *Ex parte Berins*, 168 USPQ 374 (Bd. Appeals), there is no statutory limitation as to the number of references that may be used to demonstrate obviousness not what references expressly state but what they would reasonably suggest to one of ordinary skill in the art. In *In re Conrad*, 169 USPQ 170 (CCPA), obviousness is not based on express suggestion, but what references taken collectively would suggest.

Nonetheless, it is respectfully submitted that an explanation based on logic and sound scientific reasoning of one ordinarily skilled in the art at the time of the invention that support a holding of obviousness has been adequately provided by the motivations and reasons indicated by the Examiner in the previous Office Action, *Ex parte Levingood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter., 4/22/93).

In addition, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The skilled artisan would not consider the prior art embodiments in a vacuum, but would have had the motivation to combine the advantageous features of the prior art in the manner purported by the Examiner for the reasons and motivations given in the prior Office Action. Thus, the teachings of Chapman, Tubel ,Yamazaki and/or Alft when considered with the knowledge that is generally available to one of ordinary skill in the art make obvious the limitations that Appellant disputes.

In response to Appellant's argument that is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the Applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the

primary reference, Alft is directed to a communication link established via the drill string may comprise an electrical or optical fiber passing through the drill string, an electrical conductor integral with each connected segment of the drill string or capacitive elements integral with each connected segment of the drill string. In one embodiment, the tracker unit comprises a hand-held or portable transceiver, and the secondary reference, Tubel, is drawn to transceivers for two-way communication with the surface as well as a telemetry device for communicating from the surface of the production well to a remote location. However, Tubel is reasonably pertinent to the particular problem with which Appellant was concerned because there are in the same field of endeavor.

In response, the Examiner respectfully submits that obviousness is determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Hedges*, 783 F.2d 1038, 1039, 228 USPQ 685,686 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785,788 (Fed. Cir. 1984); and *In re Rinehart*, 531 F.2d 1048, 1052, 189 USPQ 143,147 (CCPA 1976). Using this standard, the Examiner respectfully submits that he has at least satisfied the burden of presenting a *prima facie* case of obviousness, since he has presented evidence of corresponding claim elements in the prior art and has expressly articulated the combinations and the motivations for combinations that fairly suggest Appellant's claimed invention. Moreover, in the instant case, the Examiner respectfully notes that each and every motivation to combine the applied references are accompanied by select portions of the respective reference(s) which specifically support that particular motivation and/or an

explanation based on the logic and scientific reasoning of one ordinarily skilled in the art at the time of the invention that support a holding of obviousness. As such, it is NOT seen that the Examiner's combination of references is unsupported by the applied prior art of record. Rather, it is respectfully submitted that explanation based on the logic and scientific reasoning of one ordinarily skilled in the art at the time of the invention that support a holding of obviousness has been adequately provided by the motivations and reasons indicated by the Examiner, *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter., 4/22/93). Therefore, Appellant's argument is not persuasive and the rejection is hereby sustained.

Furthermore, Examiner respectfully submitted that He relied upon the clear teaching of Yamazaki whom suggested "a portable information processing system with which downsizing and increase in display capacity may be realized. The portable information processing system displays, on an HMD (head mount display) worn by a user on his or her head, an image displayed on a display portion of a portable information terminal. The system employs wireless information transmitting/ receiving means such as infrared-ray data communication or data communication by radio-wave to transmit and receive information between the portable information terminal and the HMD (See Yamazaki, Abstract; Fig.1; Fig.2; Col.2, lines 4-11; Col.3, line 1-2). Therefore, Appellant's argument is not persuasive and the rejection is hereby sustained.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejection should be sustained.

Respectfully submitted,

Vanel Frenel (V.F.)

Patent Examiner

Art Unit 3627

September 3, 2007

CONFEREES:



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Supervisory Patent Examiner  
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